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10/053,435	01/17/2002	Franz Petschauer	ANDPAT/159/US	3524

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EXAMINER

HASTINGS, KAREN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 01/27/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/053,435

Applicant(s)

Petschauer et al

Examiner

HASTINGS

Group Art Unit

1731

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 1/17/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-28 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-28 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☒ received in Application No. (Series Code/Serial Number) 09/402,333
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 14-18 and 28 are rejected under 35 U.S.C. § 102(b)** as being clearly anticipated by Upson.

Upson discloses a device for forming wood fiberboard. With respect to claim 28, it discloses a first head box 10/25 which is pressurized (see page 2 lines 90-95); it also discloses two wires 33, one top wire and one bottom wire.

There appear to be no structural distinctions between these claims and this reference. Note with respect to claim 18 the perforated plates 1 read on the structure set forth in claim 18. Furthermore, Upson explicitly discloses making a wood fiberboard. With respect to the basic weight set out in claim 14, this does not further limit an apparatus claim since it merely defines a property resulting from the intended use of the claimed device. Clearly the twin wire wood fiberboard-making machine of Upson would inherently be capable of being used to make a fiberboard with a basic weight in this range.

**Claims 1, 4, 6, 13-18 and 28 are rejected under 35 U.S.C. § 103(a)** as being unpatentable over Upson as necessary in view of applicants' admission of prior art, and/or Calkin.

Upson is applied as set forth above. In addition, it is known that a wood fiberboard is very heavy and has a basic weight in the range of  $1200 \text{ g/m}^2$  as even admitted by applicants. Calkin at page 44 discloses basic weight for wood insulating board of 700 lbs per 1000 square ft (equals .7 lbs/sg ft<sup>2</sup>, which is encompassed by claimed "at least  $1200 \text{ g/m}^2$ " i.e.  $1200 \text{ g/m}^2 = .24$  pounds/ft<sup>2</sup>) that may be made on a Fourdrinier machine (that is, a single wire papermaking machine). Thus since Upson teaches using wood fibers to make "artificial lumber" which clearly is meant to be used as a construction grade material (see page 1 of Upson lines 52-55), it would have been within the level of ordinary skill in the art to optimize the basic weight to be heavy enough to be useful as artificial lumber/insulating board and be "at least"  $1200 \text{ g/m}^2$  as claimed.

Furthermore with respect to claims 6 and 13, Upson discloses that the wood fibers are dewatered and compressed so that they ultimately emerge as a solid self-sustaining body (see page 2 lines 120-125). Thus clearly it would have been prima facie obvious for one of ordinary skill in the art to dewater it to an optimal dry content in order to have a solid self-sustaining body

Art Unit 1731

and clearly this would encompass a dry content as more than 40 or 45%.

Claims 14-18 and 28 are merely included to be complete. These claims are, as set forth above, deemed not to contain any structural distinctions over Upson. Any differences that may be gleaned would have been prima facie obvious optimization, such as optimizing the basic weight of the fiberboard made on the device of claims 18+.

***Claims 1-28 are rejected under 35 U.S.C. § 103(a)*** as being unpatentable over applicants' admission of prior art with Upson, further as necessary with Thomas '676 and/or Thomas '670 and further if even necessary with Csordas and Skoldkvist, and Calkin.

Applicants admit as prior art that making a ~~✠~~Masonite~~✠~~ construction grade fiberboard on a fourdrinier machine as shown in Figures 1 and 2 is well known in the art. To modify the known fiberboard machine to use a twin wire wedge shaped machine for the known advantages thereof for fiberboard would have been prima facie obvious since Upson teaches making fiberboard using a twin wire device, and the advantages of twin wires for dewatering are well known in the art (e.g. dewatering on two sides for more even dewatering, symmetrical surfaces, shorter machine length). Upson also teaches the alternative use of his machine for heavy paper board, wall board, or artificial lumber, which is evidence that

Art Unit 1731

one of ordinary skill in the art does know that similar/same machinery may be used to make these different products.

Further as necessary, both Csordas and Skoldkvist teach twin wire shaped forming dewatering sections for fiberboard. Likewise, Thomas '676 and '670 exemplify using twin wire machines with multiple press rolls thereafter for making board and also explicitly teach that the main advantage of a twin wire is so that one may effect dewatering "within a very short length of forming wire thereby appreciably decreasing the overall length of the machine . . .". Thus one of ordinary skill in the art would have been amply motivated by the known advantages of twin wires to modify the well known single wire apparatus method of Figures 1 and 2 of applicants' admitted prior art into a twin wire dewatering section in order to obtain the well known advantage of two sided dewatering and decreasing the overall length of the machine.

Clakin is cited as necessary to exemplify that basic weight in the range claimed is known for insulating wood fiberboard; that is .7 lbs/ft<sup>2</sup> is greater than .24lbs/ft<sup>2</sup> and thus it would have been prima facie obvious that the board be made in the claimed basic weight; the claimed ~~at least~~ 1200 g/m<sup>2</sup>, which is equal to .24lbs/ft<sup>2</sup>.

The dependent claims are all shown or suggested by the references. For example, Thomas '670 teaches the well known use

Art Unit 1731

of multiple head boxes to make multiple layers with multiple wedge shaped zones. Thomas '676 discloses at column 5 lines 25+ that these machines may be used in tandem with a single bottom wire and have subsequent head boxes depositing subsequent layers onto the board.

Note that Upson clearly teaches the alternative use of forming articles for wallboard, artificial umber or heavy paper, etc. that can be made on the same type of machinery. This is pointed out to exemplify that it is well known from the early 1900's that one of ordinary skill in the art would have found it prima facie obvious to use both the technique and the machinery of paper and/or paper board making to make construction grade board material also. It of course would be necessary to take into account how heavy fiberboard is and provide adequate pressures and dewatering mechanisms to account for such high basis weight. But the art cited clearly shows that one of ordinary skill in the art would use same/similar techniques for making either type of material, contrary to applicants' remarks in their specification.

***Claims 2, 3 and 5 are also rejected under 35 U.S.C. 103(a)***  
***as*** being unpatentable over the references as applied to claim 1 above, and further in view of Weissshuhn et al. and/or Hellstrom et al., if needed with Makela.

It is also very well known and conventional in the paper making art to regulate the paper board thickness with dilution water and/or by setting the head box lips locally to regulate the paper thickness. This is exemplified both by Weissshuhn et al. and/or Hellstrom et al. Weissshuhn et al. at column 1 line 34 teaches that one may change the distribution of the weight of the paper web by locally changing the opening of the slice gap or by locally varying the stock density, locally varying the stock density is well known to be done by adding dilution water. Weissshuhn also shows adding dilution water in various embodiments. Weissshuhn et al. also teaches the well known conventional use of a crossflow distributor with part of the flow being returned to the head box. Again this technical feature is well known to those of ordinary skill in the art.

Hellstrom et al. is also cited to exemplify well known use of dilution lines in a head box of a paper making machine and that this may be an alternative to local regulation of the slice lip to regulate the thickness of the web.

Makela is cited if even necessary merely to exemplify that one uses a head box and the features of a head box for paper and/or board machines. One of ordinary skill in the art would immediately envision the use of any known feature/technique in paper or paper board making to make a fiberboard as necessary in order to obtain the known advantages thereof.



Serial No. 10/053,435

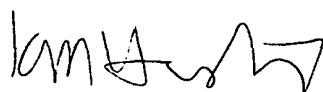
-8-

Art Unit 1731

*Any inquiry concerning this communication* or earlier communications from the examiner should be directed to Examiner Hastings whose telephone number is (703) 308-0470. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on (703) 308-1164. The fax phone number for this Group is (703) 305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0651.



Karen M. Hastings  
Senior Primary Examiner  
Art Unit 1731

KMH/cdc  
January 24, 2003

1/2003